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LARYNGEAL GROWTHS.

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THE subject of growths within the larynx, which formerly, from the difficulty attending the diagnosis and treatment, could not receive the attention from medical practitioners which it was acknowledged eminently belonged to it, has, in later years, become one of the most interesting as it is one of the most important branches in the domains of pathology and surgery. Especially is this true of the last ten years, during which the laryngeal mirror has proved to be an eye to the blind in the investigation of laryngeal affections. Before the days of Ehrmann, with whom, in 1844, began a new epoch in the treatment of these growths, such was the apparent rarity of adventitious products in the larynx, that their subsequent frequency created general surprise, and this surprise has in no wise diminished since the revelations made by the laryngoscope. It is therefore not to be wondered at that some persons are inclined to harbor and to express a doubt that these growths, now so frequently discovered, are really new formations. Czermak* says:—"With the rapidly spreading use of the laryngeal mirror, the cases of new formations in the larynx multiplied to such a degree that some of the leading authorities could not repress a fear that 'laryngoscopy at present overrates the frequency of new formations in the larynx, and describes every swelling that exists there as a new formation.'" This doubt, natural enough under the circumstances, is, however, speedily yielding to the corroborative testimony of the many observers engaged in the practice of laryngoscopy. The fact already alluded to must be borne in mind in the consideration of this subject, namely, that, in former years, a growth which produced no more trouble than hoarseness, would not be diagnosticated during life, and would pro-

* Medical Times and Gazette (London), June 7, 1862.

bably not be discovered in case of death from any cause, the single symptom mentioned not inviting special *post-mortem* investigation. Even in case of the largest tumors, the difficulty attending diagnosis was very great.* No author laid down any pathognomonic symptom. Cough, hoarseness, dyspnœa and loss of voice are characteristic of various changes in the larynx, either structural or functional, as well as of adventitious growths. The peculiar "valvular cluck," spoken of occasionally, is but rarely heard, and one of the most important symptoms, namely, the paroysmal character of the cough and dyspnœa, which is so often noticed in these cases, is pathognomonic of other affections, especially of irritation of the recurrent laryngeal nerve. Dr. Horace Green says:†—"The diagnosis of these excrescences is extremely difficult; the symptoms developed by their presence simulate those frequently observed in asthma, phthisis, œdema of the glottis, thickening of the mucous membrane of the larynx and ulceration of the vocal ligaments." The only certain sign, if I may except the few cases in which the tumor was so large as to allow of the exposure of its base to view in the pharynx, or in which it could be felt by exploration with the finger, was the expectoration of particles of the growth; and this, it may be surmised, occurred but rarely.

Another circumstance which contributed to the former apparent rarity of these morbid products, is the probability that they sometimes disappear spontaneously, or with no more aid than would be afforded in the ordinary treatment of inflammatory conditions of the laryngeal mucous membrane. Störk exhibited, before the Medical Society in Vienna,‡ a patient in whom he had previously demonstrated the existence of epithelial vegetations, covering the vocal cords to such an extent as to inferfere seriously with respiration. Powdered alum had been applied from time to time without any appreciable effect; at length the patient was allowed to go without treatment for two months, at the end of which period laryngoscopic examination showed that the disease had entirely disappeared. Dr. Gibb§ mentions a case under his care, in which the pedicle of an elongated polypus became in some way strangulated, permitting the spontaneous expulsion of the growth.

I have had the opportunity of seeing two cases in which incipient growths disappeared without treatment specially directed to their removal.

Notwithstanding the former rarity of laryngeal tumors, there seems to have been among physicians who had paid particular attention to diseases of the larynx, a conviction that new formations existed more often than was generally supposed, and the remarks of Dr. Green

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* Out of the 80 cases of laryngeal tumors collected by Lewin, only three were diagnosticated during life.

† The Surgical Treatment of Polypi of the Larynx.

‡ Wiener Wochenblatt, 1863. § Throat and Windpipe, p. 146.

seem now almost prophetic. Dr. G. says:*—"The author does not hesitate to express the opinion, and leave it to future experience to confirm or invalidate, that foreign growths have occurred in the opening of the air-passages in many instances when their presence was neither suspected nor discovered; and that if the attention of the profession should by any means be directed to this subject, it will be found that the existence of polypus and other excrescences in these passages is an occurrence taking place much more frequently than has been supposed by medical practitioners."

Having within the last few years met with a number of cases of these new formations, I propose bringing them to the notice of the profession; but, preliminary thereto, I trust a short account of the appearances, structure, mode of origin, &c. of laryngeal growths in general will not be devoid of interest. At a subsequent time I intend bringing up the subject of their treatment.

Rokitansky divides adventitious formations occurring in the larynx into five kinds:—

1st. The epithelial formations in the form of roundish, cauliflower, or wart-like growths, varying from the size of a hemp-seed to that of a hazel nut, or even larger; sometimes cancerous and sometimes non-malignant.

2d. The cellular or mucous polypi and condylomatous excrescences, occurring upon, or in immediate proximity with an ulcerated base, or when there are no existing ulcerations, forming hard or spongy purple vegetations, varying from the size of a pin's head to that of a hemp-seed or pea.

3d. Erectile tissue, occurring in the form of broad-based, soft vegetations, capable of being rendered turgid, or as the development of the free extremities of mucous polypi.

4th. Fibrous tumors, taking their origin in the submucous areola tissue, and having a nature common with the fibrous tumors not infrequent in the pharynx.

5th. Cancer, in the form of larger or smaller roundish protuberances into the laryngeal cavity.

To these varieties may be added one or two others, namely, cystic, fibro-plastic, fatty and cartilaginous tumors. It will not be out of place to mention, also, the occasional appearance of ordinary cysts, inasmuch as they produce marked interference with the voice and with respiration, and require surgical aid for their removal.

Of all the above varieties by far the most common is the first. With the various authorities they go under the name of warty growths, vegetations, cauliflower excrescences, &c. Rokitansky describes their formation as follows:—

"In chronic catarrhal inflammation, the mucous membrane, from the swelling and increase in size of the papillæ and follicles, may

* Op. cit.

become warty and rugged, and even duplicatures and prolongations may be formed upon it. These two last-mentioned inequalities are permanent immovable folds of the membrane; they constitute what is called the mucous or cellular polypus, or the vesicular polypus. These polypi are processes of the mucous membrane, of various thickness and length. In shape they are spheroidal or elongated, or like nine-pins or cylinders, and their free extremity is thick and blunted. The mucous membrane and the tissue beneath it becoming hypertrophied at particular round, circumscribed spots, form a somewhat flattened convex tumor, and progressively change into a honeycombed cellular tissue. Little by little the tumor drops into the cavity of the organ, dragging with it the surrounding mucous membrane, by which, as by a comparatively thin and more or less elongated pedicle, it remains attached; the polypus then consists of a cylindrical prolongation of mucous membrane, which contains a cord of submucous tissue, and of a truncated extremity or knob, at which the tissue proceeds to form itself into a honey-combed cluster of vesicles and follicles, and becomes lobulated like a cauliflower." Microscopically, they consist of "exuberant epithelial cells and very delicate vessels, prolonged, as it were, from the mucous membrane, held together by a very scanty, imperceptible intercellular substance, and giving way under very moderate pressure."

As already mentioned, these vegetations or warty growths are much more common than any other variety. In Dr. Gibb's table* of examples of laryngeal growths existing in the museums of London, out of 31 specimens more than two thirds were of this variety, and a search through the works of Mackenzie, Gibb and others, and among the cases reported in the various English and continental medical journals, shows that the proportion is, if anything, rather too small than too large.

The situation of these growths is in the vicinity of the vocal cords, oftener anteriorly than posteriorly, much more often above than below. A favorite seat is at the locality near the anterior insertion of the vocal cords, while they are occasionally seen between the cords posteriorly, on the arytenoid commissure. In number they vary, being single in some cases and very numerous in others. In the specimen from Dr. Gray's case,† which is in my possession, there are three or four large masses of vegetations, and ten or twelve smaller nodules in the interior of the larynx and on the laryngeal face of the epiglottis. On the lingual face of the epiglottis there are ten or twelve other nodules of various sizes, and on the tonsils and back of the tongue at least a dozen more. As regards the subjects of the growths, they are more frequently found in males than females, and no age, if we except extreme old age, seems to be exempt from them. Dr. Gibb says that in the early part of 1862, a female child, aged two

* Throat and Windpipe, p. 128.
† Boston Medical and Surgical Journal, vol. lxxiv. p. 32.

years, was brought to him with stridulous breathing, existing since her birth, and strongly simulating laryngismus. Dr. G. passed his index finger into the larynx and felt several soft growths, attached to the left side of the larynx. The child was afterwards lost sight of. In the table in Dr. Gibb's work, already referred to, out of the 31 cases 13 occurred in children. One specimen in the Museum of St. Bartholomew's Hospital came from a child, age not given, in which the growth is stated to have been congenital. The growth was a warty, tuberculous mass, growing from both sides of the larynx and filling it. In Dr. Cabot's case of laryngotomy for removal of a laryngeal growth,* the subject was a boy of five years of age, who had been hoarse for a year. In Dr. Gray's case, the subject was also a boy of five years of age, who had been hoarse for nine months.

With regard to the origin of these growths there is some difference of opinion, the main points at issue being the influence of syphilitic taint in their production. With regard to the question of malignancy, however, authorities are not so much at variance. These vegetations, indeed, seem generally no more to partake of the character of a cancerous growth than the vegetations on the genital organs which they so much resemble in their appearance and internal structure. The only thing which would suggest malignancy is their tendency to recurrence; but this really only happens when their extirpation has not been complete. When the growth extends over a large surface, its entire extinction is no easy matter. Kœberle, in remarks on a case of laryngotomy performed by him for the removal of a condylomatous tumor filling the larynx,† says that there was no apparent return of the disease after four months, but adds that the affection has almost always reappeared, and that one cannot feel sure of a cure before the lapse of a twelvemonth." When the growth, however, is small, and especially when it is pediculated, its recurrence after extirpation is rare. One has only to glance at the results of operations recorded by laryngoscopists to be assured of this fact.

Except the tendency to recurrence, these growths have nothing in common with malignant disease. They do not ulcerate, nor do cancerous growths manifest themselves in other parts of the body. Lastly, the youth of such a large proportion of the subjects is another argument against malignancy. It is to be remembered, however, that vegetations in the larynx often spring from a cancerous basis. This form has been noticed under the second variety of Rokitansky's classification.

Before leaving this part of the subject, I desire to call attention to a case reported to the Pathological Society of London by Mr. Curling,‡ in which there was an epithelial growth, with carcinomatous ulceration extending to the œsophagus. Mr. C. considered the

* Boston Medical and Surgical Journal, vol. lxxiv., p. 181.
† Gazette des Hopitaux, 7 Juin, 1866.
‡ London Lancet, January 18, 1858.

disease to have been originally epithelial or warty growths, which had subsequently undergone cancerous degeneration. Dr. Andrew Clarke, an accomplished pathologist and microscopist, showed drawings of the specimen, and expressed himself as agreeing with the view of the case taken by Mr. Curling.

With regard to the syphilitic character of the vegetations, when it is remembered that the most modern syphilographists doubt the specific nature of the vegetations which appear upon the genital organs, it may certainly not be presuming too much to question the specific character of such forms in the larynx. Still, these growths have occurred in the larynx under such circumstances as to cause a reasonable conviction in the minds of many observers that they owed their origin to a syphilitic taint. I have already recorded Rokitansky's opinion in the second variety of his classification. Prof. Gross says:—"Warty excrescences, similar to those of the vulva and penis, are sometimes found in the larynx. These vegetations are usually associated with thickening of the lining membrane of the tube, and are nearly always dependent upon a syphilitic taint of the system"; and Rayer says:—"Numerous cases leave no doubt of the fact that certain excrescences are owing to the syphilitic cachexia, and that they sprout without evident inflammation." However the fact may be, one can hardly help remarking, in looking over the reports of these growths in the works of laryngoscopists and in the records of pathological societies, how seldom the suspicion of syphilis is hinted at in the subject in which they occur. In the cases of Dr. Cabot and Dr. Gray, already referred to, there seemed to be not the slightest reason to suspect a specific origin. Grant that they sometimes spring from an ulcerated surface, it does not follow that we are to consider them as anything more than an accidental formation upon a specific lesion; or grant, again, that they arise as the result of a specific laryngitis, so they arise in inflammation of the laryngeal mucous membrane which is not specific.

With regard to the influence of inflammation of the mucous membrane of the larynx in the production of vegetations, there is little doubt that such a condition may be an exciting cause. Rokitansky refers to it in other parts of his "Pathology" than the one already quoted from. Under the special head of "Chronic Catarrhal Inflammation," he says:—"This gives rise to swelling of the mucous membrane, especially on those parts of the larynx which we have already described as abounding in glands, thus causing glandular hypertrophy, mucous polypi and cauliflower epithelial growths."

Virchow, also, in the second volume of his work on Pathology,* gives a decided opinion as to the influence of local irritation in producing new formations.

Lewin mentions the local irritation of foreign bodies as an occa-

* Vorlesungen über Pathologie.

sional cause of vegetations, and adds that they sometimes follow measles and scarlet fever. In Dr. Gray's case, the child had been given by mistake, or had taken itself, a quantity of water of ammonia, some eight months before laryngeal symptoms came on. Considerable soreness of the throat followed, but the child seemed afterwards not to have been seriously affected. Generally, in the reports of these cases, it will be noticed that the subjects are represented as having been liable to "colds." Dr. Elsberg seems to be confident of the influence of local inflammation in the production of the growths which have come under his observation. Nevertheless, it must be admitted, that it is often difficult to determine whether the laryngeal symptoms in these attacks called "colds" or "croupy attacks" were in all cases the cause or the effect of the new formations. If the growths are sometimes congenital, without any suspicion of syphilitic taint, there can be little doubt that they may arise without any appreciable cause, and in such a case they may be the exciting influences in what may seem to be an ordinary "cold," at a time when they are of too small a size to produce any more serious symptom.

Lastly, tuberculosis has been mentioned as an exciting cause. Andral refers to two examples of polypus of the larynx that he had met with; in both, the subjects of the disease were patients affected with tubercular phthisis. Louis, however, does not speak of having met them in phthisis.

Thus much in reference to the vegetations. With regard to the other kinds of tumor met with in the larynx, there is not much to be said as far as the cause of their appearance is concerned. They arise, as they arise in other parts of the body, without known cause.

The fibrous polypus resembles exactly the polypus of the pharynx, but is comparatively very rare. It generally springs from the ary-epiglottidean fold. Examples are mentioned by Debrou,* and by Trelat†.

The fibro-plastic tumor is also rare. Lewin has, however, collected some half a dozen examples, three of which occurred upon the vocal cords. I have lately removed one of the size of a pea from the vocal cord in a male adult. It was buried deep in the body of the cord, and was exceedingly hard and tough. Under the microscope Dr. Ellis found it to present the appearances common to fibro-plastic tumors elsewhere. I hope soon to publish the case entire. Dr. Mackenzie‡ records the case of a man aged 41 years, from whom he removed, by piecemeal, a polypus of the size of a bean, growing just above the anterior insertion of the vocal cords. According to Dr. Andrew Clark the growth was of a yellowish color and of a horny consistence. On account of their hardness the structure could not be very easily determined. Dr. C., however, considered the case as one of commencing fibro-epithelial growth.

* Gazette des Hopitaux, Nov. 7, 1863.
† Gazette Hebdomadaire, May 1, 1863.
‡ The Use of the Laryngoscope, p. 135.

Cartilaginous tumors are very seldom met with. In the *Dublin Journal* for Sept., 1835, mention is made of a firm osseo-cartilaginous tumor of the size of a walnut, which was connected with the right thyro-arytænoid ligament and pressed upon the rima glottidis.

Cystic tumors also seem only occasionally to be met with. Dr. Gibb mentions an example occurring in a female aged 38 years. The tumor seemed to be developed from one of the ventricles of the larynx, and was of considerable size, so as to almost completely conceal the glottic aperture. Dr. Gibb represents Meckel as of the opinion that cystic tumors of the larynx are not very uncommon.

Fatty tumors, I think, must be still rarer than the cystic, for although they are mentioned as having occurred in the larynx, I recollect meeting with the record of but a single case.

Before closing the account of these growths it will be important to remark upon the character of certain projections from the mucous membrane of the larynx, which seem to be the product of inflammation, and are probably the incipient form of new formations.

It will be remembered that some of the warty growths have their origin in a hypertrophied condition of the follicles of the mucous membrane. A number of these enlarged follicles coalescing into one mass forms warty tumors of various size, which sometimes become pediculated, but which often are attached by a broad base. A single follicle, however, is sometimes seen to form a little acuminated process, which may shrink up wholly, or in the greater part, when the inflammatory condition of the mucous membrane, to which it owes its origin, subsides. I have met with two or three such instances. Again, there may be considerable prolongations from the mucous membrane which have not the character of any of the new formations commonly met with, but which are, nevertheless, permanently organized tumors, requiring surgical interference. An example of such outgrowths is found in the report of a case occurring at the London Hospital under the care of Dr. Frazer, in the *London Medical Times and Gazette* of March 31, 1866. The patient was a male, 28 years of age, in whom laryngeal symptoms dated back three years. A laryngoscopic examination showed a high degree of congestion of the mucous membrane of the larynx and numerous irregular outgrowths presenting the appearance of excrescences. These outgrowths of thickened mucous membrane projected from both the vocal cords, and from beneath their anterior insertion. Dr. Mackenzie removed several portions of the projecting membrane with the laryngeal forceps. Dr. Frazer remarked that the case seemed to be one of chronic inflammation of the lining membrane of the larynx, which had resulted in the formation of irregular thickened projections of the mucous membrane. These presented the appearance, in the mirror, of warty growths, but as they did not possess the pathological character of epithelial tissue, containing merely the imperfectly organized products of inflammation, Dr. Mackenzie very properly called them false excrescences.

Finally, I may also mention in this connection that I have met with two instances in which growths appeared upon the free edge of the vocal cords, which appeared to be fibrous in their nature, and which were probably organized lymph which had been deposited as the result of inflammatory action. One of these cases I read before a late meeting of the Medical Improvement Society of this city. There was a suspicion of syphilis in this patient.

[To be continued.]

DR. WEBBER'S ESSAY ON CEREBRO-SPINAL MENINGITIS.

[Continued from page 222.]

VALLEIX, after mentioning that new recruits were most frequently the victims, says:—"Fatigues to which the young soldiers were not accustomed, exposure to inclemencies of the weather, prolonged exercises, are the causes which, according to all appearances, have determined the appearance of the disease."

Dr. Frothingham, who saw several cases while connected with the Army of the Potomac during the winter of 1861–62, speaks of this cause as follows:—"Here was a large army, living under almost exactly the same circumstances as to food, beds, ventilation, clothing, &c., and within a few miles of space; yet a few cases (enough to indicate some common cause) of an unusual disease occurred in one brigade (as I did not hear of any other cases, I take it for granted there were none). Malarious and continued fever prevailed in all the camps throughout the army. The only circumstance influencing disease in which this brigade differed from others, was in the severity of its labors. Under Gen. Daniel Butterfield, a stern disciplinarian, who always, sick or well, did his own entire duty and would receive no less from his subordinates, the men were drilled to the full extent of their powers—often to exhaustion. I did not at the time recognize this as a cause of the disease in question, but I learn that in the present epidemic in Pennsylvania, the attack generally follows unusual exertion and exposure to cold." *

Thus, in civil life, great fatigue has been mentioned as the cause of the appearance of this disease, and this was likewise noticed by Dr. J. Norcom, of Edenton, N. C., in 1815, who gives as the causes—excessive fatigue and long-continued exposure to cold, violent exercise, sitting up nights, irregularities of living, intemperance of every kind, more especially intoxication; everything that has a tendency to debilitate.†

Here he mentions other influences as cöoperating with fatigue and violent exercise; and so in other places there were found influences which seemed to predispose to the disease: badly ventilated residences

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* American Medical Times, April 30, 1864.
† Eclectic Repertory, vol. v., 1815.

causing a vitiated atmosphere, unwholesome food, sudden changes in temperature, dampness, &c.

M. Corbin, in regard to the epidemic at Orleans, in 1847–48, says, "The principal cause in our eyes is crowding, which supposes the alteration of the air, combined sometimes, for the soldier, with unhealthy habitation, and often, during the winter, with a temperature too elevated in the guard-houses or in the quarters. The barracks of St. Charles, which has furnished the greatest proportion of sick, is an old building, situated below the level of the ground. The lower story, it is true, is uninhabited; here are cellars which serve for magazines; the first story had been inundated the year before to a very great height; the walls were damp, even so that the water dripped from them." The troops were removed into the upper stories; and then they crowded together, and saving wood by using only one or two rooms, heated those excessively, keeping the doors and windows constantly closed.*

MM. Porral and Raphael consider the cause of the disease at Puy and Vannost was, that the inhabitants became warmed by their labor in the valley, and then ascending the mountains became too suddenly cooled.†

M. Valleix says, "At Rochefort fatigue has not been greater than usual, but it was learned from an extensive examination made on this point, that the convicts were badly clothed, badly shod, and that the place where they passed much of their time was remarkable for its dampness. These are the only circumstances to which can be referred the appearance of the epidemic."

M. Rollet considers as determining causes—cooling after having been heated by the sun, or succeeding to a violent exercise, and vicissitudes of temperature.‡

At Toulon, previous to the outbreak of the epidemic of 1829–30, among the galley slaves, they were confined on board three old hulks. M. Fleury says in regard to the one on which the disease appeared, that it was moored near a dock, where much refuse had accumulated, lying half decomposed, and which was being cleaned out. The thousand convicts quartered in this old hulk were distributed in nearly equal proportion among the three decks, of which the lowest was almost on a level with the water. These decks were sixty feet long, forty-four and a half feet wide, and five and a half feet between. The men lay in four ranks on mattresses of tow eighteen inches wide. The air ports were open during the day, but frequently closed at night. During the night the decks became very filthy, and though cleaned every morning, the planking must have become saturated with excrementitious matters. In addition to this, the upper decks were imperfectly caulked, and allowed the rain to pass through more

* Encyclo. de Sci. Méd., 1848, t. v.
† Report of M. Claubry, in Mem. de l'Acad. de Med., t. xiv.
‡ Mem. de l'Acad. de Med., t. x.

or less freely. The food and clothing seemed to be sufficient for health.

Dr. Savages says of the disease which appeared in New London, Conn., in 1832, "The streets of the low and intemperate were its birth-place, and their dwellings its *cradle;* and upon this class of persons was its fury spent, for theirs was the condition most congenial to its evidence and growth."*

But these causes did not operate everywhere, and many looked upon a malaria as concerned in the production of the complaint. Dr. Latham, who observed the epidemic at the Millbank Penitentiary, thought that malaria was probably one of the causes; and so also Dr. Sanderson, with regard to the disease at Dantzic, during the last year (1865).

By examining the reports of the weather during the prevalence of this disease, we may be able to find some peculiarity in the temperature, the dryness or dampness of the atmosphere, which, with other influences, bears a part in producing it.

It will be remembered that Sydenham mentions the severity of the winter of 1683, exceeding any that could be remembered; and that of 1684 was very severe, but not so much so as the previous one. In February, 1685, the "Febris Nova" appeared.

Dr. Rush remarks: "Upon the recurrence of cold damp weather, the cases immediately multiplied, and those who had been previously ill never failed to become worse. Exposure to the external atmosphere and cold seemed constantly to predispose to the disease."†

Dr. Folchi, writing concerning the epidemic resembling cerebro-spinal meningitis, which prevailed at Rome during the winter of 1817, attributed its spread to the extraordinarily mild temperature of the atmosphere during that winter.‡

Dr. Hazeltine, of Maine, gives as one cause, "coldness and humidity of the spring, summer and autumnal seasons.§

M. Vieusseux says, with regard to the climate of Geneva, that the winter preceding 1805 was long, cold, not very severe. The spring was very cool and vegetation was singularly retarded. In 1805, this disease appeared.‖

Dr. Henry Fish, of Hartford, Conn., says that "the winter of 1808–9 was unusually severe, the cold weather commenced earlier and continued longer than in the six or eight years preceding. The snow fell in December, in large quantities, and was not wholly removed until late in March. It was generally a foot or more in depth, and the air was intensely and uniformly cold. Snow-storms were frequent and severe, without being succeeded by thaws." This disease appeared in 1807, and was seen again in 1809.

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* Boston Medical and Surgical Journal, vol. viii.
‡ Medical Repository, N. S., vol. iii.
† Quarterly Journal of Foreign Medicine and Surgery, vol. i.
§ Medical Repository, New Series, vol. iii.
‖ Jour. de Med., Chir., Phar., &c., t. xi.

The Committee of the Massachusetts Medical Society in 1810 reported that the previous summer was cold; the weather from November to the 12th of January was calm and moderate, with more heat than usual; after December 1st, there was considerable rain and but little snow; occasionally the change in temperature was very great. In January the epidemic commenced.

J. Wilson, of Salisbury, N. H., says: "It seems probable that the changes of temperature have for five years past (preceding 1813) been much greater than ever before were known. That many animals expired by its immediate operation, is a fact. That the organization of vegetables suffered a derangement which eventually proved fatal to many of them, is a circumstance that any person may ascertain.*

J. Haviland says, with regard to the temperature of Cambridge, Eng., that the winter of 1814 was mild; in the latter part of January the epidemic commenced, which so much resembled cerebro-spinal meningitis.†

At Toulon, during the winter of 1829–30, the weather was extremely variable, and presented differences of temperature unknown to aged men who had preserved the remembrance of the most severe winters. "In December the winds blew from the east and west; there were six rainy days, the weather remained moist and cold, and the thermometer gave, at its greatest elevation, 13° and some tenths centigrade, and at its lowest 3° below 0. In January, there were the same winds; snow and hail fell, and there were six sunny days; the moist and cold weather was constant. The greatest elevation of the thermometer was 12° and its lowest 7° below 0. In February, the prevalent winds were the same. Snow fell during the beginning, rain followed so as to preserve the same temperature. The thermometer, which had descended to 3° below 0, rose to 17° towards the end of the month." It was during these three months that the disease prevailed.

M. Rollet, in a memoir read before the Academy of Medicine, says: "As to the changes of temperature, I will observe, that since the commencement of May, even to the end of July, the atmosphere has been frequently charged with electricity, that the heat, without being very elevated, has often been oppressive, and sudden variations of temperature have been quite frequent."‡

M. Claubry, in a report on the epidemics of France during the years 1841–46, says, that to the very warm summer of 1842 had succeeded a very cold and wet autumn, and a very severe winter. In February, 1843, appeared the cerebro-spinal meningitis.§

[To be continued.]

* Medical Repository, New Series, vol. i.
† Med. Trans. of Col. of Physicians, London, vol. v.
‡ M. Rollet, in Mem. de l'Acad. de Méd., t. x.
§ Mem. de l'Acad. de Med., t. xiv.

Reports of Medical Societies.

EXTRACTS FROM THE RECORDS OF THE BOSTON SOCIETY FOR MEDICAL IMPROVEMENT. BY CHARLES D. HOMANS, M.D., SECRETARY.

Aug. 13th.—*Aneurismal Dilatation of the Arch of the Aorta; Extensive Atheromatous Disease.*—The patient from whom the specimen was taken was exhibited to the Society by Dr. Morland, April 9th, 1866, and was then examined by a large number of the members. The "sphygmograph" was also applied to the radial arteries, at this time, by Dr. Upham, with interesting illustrative remarks.

The account of the case is as follows, being taken, mainly, from the medical records of the City Hospital, as made by Dr. Adams, one of the Resident Physicians.

The patient, Michael Kingsley, was admitted March 19th, 1866, under Dr. J. N. Borland, who had charge of him during nine days. He was a sailor, 50 years of age, a native of Ireland. One year ago, while on board a ship, on Long Island Sound, he was struck on the head by a "fall," knocked against the vessel's rail, and bruised in the left lumbar region. He was carried below, and expectorated about one half an ounce of fluid blood. Lameness and soreness of the lumbar region continued for two or three weeks. On coming to Boston, he was treated at the Central Office of the Dispensary. After this, he continued about as well as usual, until the middle of last October, when, after exposure to cold and wet, he had cough, and dyspnœa on exertion, without hæmoptysis or night-sweats. At this time, palpitation of the heart was noticed, and the patient ceased to work. All the symptoms gradually increased up to the time of his admission into the Hospital.

March 20.—On examination, the report of the physical signs, by Dr. Borland, is thus given: "A thrill was discovered, on palpation, most distinct over the sternal ends of the clavicles; over both carotids; between the insertions of the sterno-cleido-mastoid muscles; and at the acromial end of the left clavicle, over the subclavian artery. A murmur was heard over left upper chest, and in the left back, in the supra-spinous fossa, rapidly disappearing below the spine of the scapula. Measurement of right and left chest the same, from vertebral spinous processes, across the nipples, to the xyphoid cartilage. Sounds of heart somewhat confused: a souffle at the end of the first sound, and extending over the second. Pulse 96, full, strong, synchronous in the wrists, but much stronger in the left than in the right."

Dr. Morland said he had made a great many subsequent examinations, with a nearly uniform result in all—especially towards the last of the patient's life—but differing, somewhat, from the above, and the following is an average record. *Thrill* most distinct just above sternum; also felt in right carotid and subclavian regions; no thrill in left carotid and subclavian. *Impulse* very strong at acromial end of left clavicle; less strong, but marked, in corresponding position on right side. Over base of heart, a distinct double *souffle*, resembling a "to and fro" sound. This was not heard until some time after patient's admission, the record on March 30 being—"Strong, direct aortic souffle, loudest over base of heart."

The patient at first, and for much of the time, slept well; but

coughed considerably in the morning, on awaking, and complained of a sensation of "smothering." Nourishing but unstimulating diet was directed; also an expectorant mixture for the cough; and pain and uneasiness were relieved by external applications.

The diagnosis was *aneurism of the arch of the aorta*, although much discussion arose, from time to time, as to whether the neighboring vessels were not also involved.

April 15.—The laryngoscope was used by Dr. Henry K. Oliver, jr. No evidence was found of any pressure upon the recurrent laryngeal nerve. The recumbent position advocated by Mr. Tufnell, of Dublin, and lately favorably reported upon by Dr. H. I. Bowditch, was assumed by the patient on the 7th of May, and was maintained as rigidly as possible until his death. No proper bed, however, to fairly test the plan was obtained. A liquid farinaceous diet was ordered. In this position, the frequency of the pulse was not diminished; it remained at 96;* being counted nearly every day. The *thrill*, however, became notably less distinct, and at times was barely perceptible. At this time the patient began to be greatly troubled with hæmorrhoids, and also had diarrhœa, both of which were with great difficulty relieved. The "smothering" sensation also increased, and attacks of dyspnœa became frequent. At one period he had much hoarseness, but it soon passed off.

June 26.—Patient began to complain of violent pain at the epigastrium, accompanied by throbbing. Distinct heavy pulsation was felt in the region indicated. Some relief followed the application of hot fomentations. He was nourished by beef-tea enemata, having refused to take food. His strength rapidly failed.

June 30.—At 3½ o'clock, P.M., he was seized with an unusually severe paroxysm of dyspnœa, accompanied by extreme pain in the upper part of the right iliac fossa. The pulse, then, for the first time, began to diminish in volume and force: and, in half an hour after the urgent symptoms commenced, death took place—the patient's mind being clear to the last.

The *post-mortem* examination was made by Dr. C. W. Swan, Pathologist to the Hospital, and his account is appended.

Autopsy, July 21, twenty-three hours after death. Head not examined. Body somewhat emaciated; no rigor mortis. Lividity of depending portions of trunk.

Pericardium contained two ounces of serum. Smooth, white fibrous patches over front surface of right ventricle, and lines and dots of similar character over the course of many veins of posterior surface of left.

Heart hypertrophied. Left ventricle moderately dilated; the right slightly so. Muscular substance firm. The right auricle and ventricle and pulmonary artery contained a large blackish coagulum. Similar coagula, in less amount, occurred in the left heart. There was thickening and rigidity of the aortic valves, sufficient, apparently, to interfere moderately with the circulation.

A good deal of atheroma, partly cretaceous, in the arch of the aorta. It was well marked in the thoracic, and slight in the abdominal portion and its branches. A considerable dilatation occurred just above

* It once rose to 104, and once fell to 92.

the valves. It tapered somewhat to, and ceased abruptly at, the termination of the thoracic portion. There was a shallow, cone-shaped bulging of the aorta about the origin of the innominata, while the latter was contracted to a diameter of three sixteenths of an inch, and stiffened at its edges by cretaceous deposit. The orifices of the left carotid and subclavian were each four sixteenths of an inch in diameter, and less rigid than that of the innominata—facts which seem to account for the difference which existed between the radial pulses.

The *pleural cavities* contained each about six ounces of serum.

Lungs considerably œdematous; otherwise well.

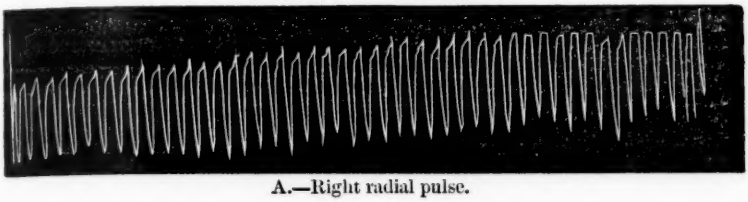
The *abdomen* contained a small amount of serum.

The *liver* was of normal size. It showed the nutmeg appearance on section.

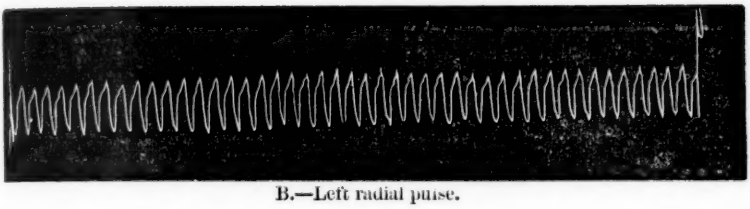
Spleen small, and quite firm.

The capsules of the *kidneys* were somewhat adherent, but the organs were not positively diseased. Other organs healthy.

Sphygmographic Indications.



A.—Right radial pulse.



B.—Left radial pulse.

See remarks by Dr. Swan, in relation to the state of the vessels, as observed after death.

Dr. Oliver said that the object of making a laryngoscopic examination was to see if there was any pressure upon the recurrent laryngeal nerve, in which case some light would be afforded as to the origin of the aneurismal tumor. At the examination, however, there was no paralysis of either vocal cord; both cords were equally separated from the median line, and acted equally well in phonation. It may be mentioned, that there was not present, in this case, the paroxysmal cough or the hoarseness characteristic of pressure upon the recurrent nerve. The aneurisms likely to affect this nerve are, upon the right side, those of the right subclavian and the innominata arteries; and, on the left side, of the arch of the aorta.

In answer to a question by Dr. Oliver, Dr. Swan said that the recurrent nerves were found at the autopsy to be, apparently, unaffected by pressure.

THE BOSTON MEDICAL AND SURGICAL JOURNAL.

BOSTON: THURSDAY, OCTOBER 18, 1866.

ANNUAL REPORT BY THE CITY REGISTRAR OF THE BIRTHS, MARRIAGES AND DEATHS IN BOSTON FOR 1865.

THE Annual Report of our methodical and indefatigable City Registrar must rejoice the heart of every statistician. Any one not accustomed to look at the multitude of details which it furnishes in their various aspects, would be astonished to find what a host of deductions may be drawn from the "facts and figures" which every day are noted down in this official's books, bearing upon the gravest questions of public policy and private morals. The Report before us is crammed with such statistics; and the Registrar, in presenting them in their different relations, has shown that his mind is fully open to the many considerations which give such records so much value as guides and motives in some of the most important reformatory movements of the day. Its whole forty-eight pages exhibit in almost every paragraph facts or deductions of much interest and value. A few of these we propose to offer to our readers.

The first question that naturally suggests itself is, what is the population of the City that constitutes the basis of these statistics? And here we learn, that at the close of the year 1865, it was 192,324, an increase of 14.484 since the United States Census in 1860. The number of births during 1865, was 5,275—2,722 males, and 2,553 females, an increase of 283 over the preceding year, or one in 36.46 of the whole population; in 1860, the ratio was one to 30.84 of the whole population, showing a considerable diminution in the past five years. "For the last seventy years, the birthrate has been diminishing throughout the United States. The highest birthrate is found in the Territory of Utah, and in the States of Oregon, Iowa, Minnesota, Missouri, Texas, Illinois, Kansas, and Arkansas, in the order in which these States are named: and the lowest in New Hampshire, Vermont, Maine, Connecticut, California, Rhode Island, Massachusetts, and Louisiana." This is the result which might have been anticipated, showing the operation of influences in the older and more crowded communities antagonistic to the rapid increase of our population by births. As usual, of late years, the number of births among our strictly native population was much less in proportion than among our citizens of foreign birth. The ratio of births among the former was 24.75 per cent. of all the births, while the ratio of births of children of Irish parents alone was as high as 43.35 per cent. of the whole. The Registrar very sensibly remarks, in reply to the dismal forebodings of those who see in these facts a prospective conversion of Boston from an American into a European city, that "this apprehension would appear wholly groundless if those cherishing it would reflect that those who are born here are as truly and naturally American in love of country and local attach-

ments, even though their parents were born beyond the seas, as those whose pride it is that their ancestors came over in the Mayflower."

The colored population of Boston, in number 2,627, furnishes the following data: "Births, 64, ratio 41.05; deaths, 87, ratio 30.19. Compare with the above a similar statement of the white population: births, 5,211, ratio 36.40; deaths, 4,454, ratio 42.59."

By which it is evident that the colored population must rapidly die out here, if this state of things continues, unless their number is kept up by arrivals from other places.

Very curious details are given in connection with the marriages, but we must pass them by with the mention of the single fact, that in 407 of them, or nearly 15 per cent, the bride was older than the bridegroom, and pass on to the deaths.

These numbered 4,541—2,328 males and 2,213 females, a decrease of 570, compared with the preceding year, indicating a remarkable state of health in the city. Of the deceased, 3,143 were born in the United States. It is incidentally mentioned in this connection that the foreign-born population of Boston, according to the census of last year, numbered 66.020. The proportion of deaths of those whose parents were foreign-born was 63.15 per cent of the whole number. A table exhibiting the number of deaths in each month, shows that

"Over 23 per cent of the mortality was of children under one year of age, and that 40·60 per cent was of children under five. Of the 1,047 under one year of age, no less than 75 (7·16 per cent) died on the day of their birth. Of these, 57 were children of foreign parents. The number that died between 1 and 5 was 797, or 17.55 per cent. In 1864, the percentage of the same class was 21.83. Of this number 573, or 71.89 per cent, were of foreign parentage. The number between 5 and 10 was 182, or 4 per cent of the whole number. Of these, 121 (66.48 per cent) were children of foreign parentage. The number between 10 and 15 was 85, less than 2 per cent of all who died. The number of these who were of foreign parentage was 63, or 74 per cent of the whole number. The number of deaths under 15 years of age was 2,111. Of these, 1,464 (68.87 per cent) had foreign born parents. The number of deaths between 15 and 20 was 164, or 3·61 per cent. Of these, 46 were foreign born, while a large proportion of the remainder were of foreign parentage. Of the 559 who died between 20 and 30 (12.31 per cent), 287 (51.34 per cent) were native born, showing a slight difference in favor of those not born here. On the other hand, of the 478 who died between 30 and 40, 263 (56·16 per cent), were foreign born. There were 369 deaths of persons between 40 and 50 years of age. Of this number, those that were foreign born make 62.60 per cent. Those that were born in Ireland make 77.49 per cent of the whole number that were foreign born.

There were 288 deaths of persons between 50 and 60, making 6.34 per cent of the whole number. Of this number, the foreign born make 60.76 per cent; and of the latter, those born in Ireland make nearly 51 per cent. Of the number who died between 60 and 70 (5.74 per cent of the whole mortality), 53.25 per cent were foreign born. Of these last, the Irish make no less than 85.61 per cent. There were 211 deaths of persons above 70 years of age, making 4·64 per cent of the entire number. Those born here number 55. The foreign-born number 156, of which those born in Ireland make 63 per cent."

A carefully prepared table shows the number of deaths in each month from each fatal disease; many of these items are made the subject of detailed remark subsequently. Referring to the subject of Cholera, the Registrar mentions that during the first epidemic in Boston, in 1832, there were 78 deaths, the first one occurring on the 24th of August. During the second epidemic, in 1849, there were 611

deaths—338 males and 273 females, the first death occurring on the 3d of June; 162 only being of native birth, and of the remainder, 385 having been born in Ireland. During the third epidemic in 1854, there were 261 deaths—130 males and 131 females; of these, 71 only were native born, and all the rest, except 15, were born in Ireland.

Consumption destroyed, in 1865, 813 victims—381 males and 432 females; their ages are shown in the following summary: "Under 5 years, 41; 5 to 10, 20; 10 to 20, 81; 20 to 30, 248; 30 to 40, 167; 40 to 50, 120; 50 to 60, 66; 60 to 70, 43; 70 to 80, 22; over 80, 5.

With regard to the mortality of children under five years of age it is remarked, "That it was not until 1835 that it reached 40 per cent (41.61). In 1838, it was 40.57 per cent; in 1841, 41.83 per cent; and in 1849, 42.46 per cent. Since that time it has never been below that of 1865—40.60 per cent. In 1853, the deaths of children under 5 years of age made no less than 49.90 per cent. of all the deaths. In 1855, nearly the same result was witnessed, while in 1859 it fell to 41.92 per cent.

"It will thus be seen that the excessive mortality among children of the ages above indicated, seems to have commenced with the year 1849, with one or two exceptions. Since that year the percentage of deaths has been large, as they were prior to that period small."

A fact fairly referable to the great increase of our foreign population of late years.

The whole number of still-births reported during the year was 373; 216 males, 149 females, and 8 of which the sex was not reported.

QUACK ADVERTISEMENTS IN THE DAILY PRESS.

One of our evening papers remarks that any one reading our editorial of last week must be surprised to find in the Journal an advertisement of a remedy for various nervous affections. Our reply is, that the advertisement in question is addressed to physicians and druggists, not to the public in general, who cannot be supposed to furnish many readers of an exclusively professional journal. Furthermore, the article referred to has a place in the United States Dispensatory, and there is no novelty about it; we have, however, no faith in its efficacy, as it has utterly failed in our hands. It is rarely imported direct from South America, where it is obtained, and the French preparations of it are almost the only ones to be found in our market. The case is a very different one from the unblushing and untruthful announcements in the daily papers which were the subject of our remarks.

PROGRESS OF THE CHOLERA.

The London *Lancet* of September 22d says: "It is obvious that the disease is still widely scattered in Western and Northern France, and it is known that it has reappeared in several towns which suffered severely last year in the South. On the 6th inst. sixty deaths from cholera were registered in Marseilles. Nice, which escaped the epidemic, with the exception of a few imported cases last year, is said to have now come within its influence, several deaths being reported. The appearance of the disease in Boulogne (seemingly as yet but in a little active form) since the last week of August, shows that it has

not yet ceased to extend in North-Western France, in which wide district the epidemic has been more or less prevalent since the commencement of the year. Amiens, which suffered most severely, does not appear to have become altogether freed from the pestilence. * * Few districts of Holland and Belgium have escaped, and the sum total of deaths in both countries is mounting to a formidable figure. The whole of Northern Prussia, including the capital, and probably other districts, is infected; and the epidemic is prevalent over a broad tract of country on the eastern shores of the Baltic, as high as St. Petersburg. The disease has also found a lodgment in Sweden, at Stockholm, and in Norway, at Christiania. In Central Europe, Vienna and Pesth have been attacked. Recent news of the progress of the epidemic in Eastern Europe is wanting."

The number of deaths in Holland from cholera from April 28th to Aug. 25th, was 15,808; in Belgium, from the commencement of the epidemic to Aug. 31st, 16,699. During the seven weeks preceding the 15th of September the deaths in London were 3,091, the number for the last week being 182. In Liverpool during the week ending Sept. 17th the mortality was 182; during the three weeks preceding, 516.

In America we have merely newspaper reports which are not very reliable. The disease does not seem to be very active at present. During the epidemic at St. Louis the deaths are said to have reached the large number of 2,900 in a single week, or one and a half per cent. of the whole population. From this number they rapidly declined to 900 in a week, and now are so few as not to excite any public alarm. At Chicago the number of cases has increased of late; on the 16th there were 32 new cases and 8 deaths. In New York and Brooklyn the disease has nearly disappeared.

BOSTON DISPENSARY.

The following are the statistics of this institution for the year ending October 1st, 1866. The number of new patients at the Central Office has been 14,412—of which 10,231 have been medical cases, and 4,181 have been surgical, classified as follows:—

MEDICAL.

	Men.	*Women.*	*Children.*	*Total.*
1st quarter,	364	892	877	2133
2d "	523	965	733	2221
3d "	534	1245	1150	2929
4th "	493	1177	1278	2948
Total,	1914	4279	4038	10,231

SURGICAL.

1st quarter,	888	3d quarter,	1147
2d "	1110	4th "	1036
Total,			4181
Total number of cases at Central Office,			14,412

The number of new patients in the Districts has been as follows:—

	Men.	*Women.*	*Children.*	*Total.*
1st quarter,	293	638	759	1690
2d "	419	954	795	2168
3d "	351	954	906	2211
4th "	345	912	942	2199
Total,	1408	3458	3402	8268

Discharged, cured or relieved,	7,715	
Sent to Hospitals, or removed from Districts,	218	
Died,	297	
Remaining under treatment,	82	
	8312	
Patients remaining at last annual report,	44	
		8268
Total number at Central Office and in Districts,		22,680

PATIENTS, NEW AND OLD, AT CENTRAL OFFICE.

	Medical.	*Surgical.*	*Total.*
1st quarter,	4836	1627	6463
2d "	5842	2135	7977
3d "	6688	1739	8427
4th "	6729	1701	8430
Total,	24,095	7202	31,297

Number of cases of midwifery,	121
Number of recipes during the year,	54,508
Average daily attendance,	104

SURGEONS.

David W. Cheever, M.D.
Francis H. Brown, M.D.
Seth L. Sprague, M.D.
Calvin G. Page, M.D.

PHYSICIANS.

Henry K. Oliver, M.D.
S. H. Carney, M.D.
Hall Curtis, M.D.
B. Joy Jeffries, M.D.
J. M. Hayward, M.D.
Charles F. Crehore, M.D.
P. A. O'Connell, M.D.
Francis C. Ropes, M.D.
Joshua B. Treadwell, M.D.
Charles B. Porter, M.D.
Samuel W. Langmaid, M.D.
Robert Willard, M.D.

DISTRICT PHYSICIANS.

No. 1.—Charles E. Inches, M.D.
No. 2.—Washington B. Trull, M.D.
No. 3.—A. I. Fenn, M.D.
No. 4.—David F. Lincoln, M.D.
No. 5.—Robert F. Disbrow, M.D.
No. 6.—J. F. Appell, M.D.
No. 7.—Joseph W. Cushing, M.D.
No. 8.—Jos. R. Draper, M.D.

A. K. Carruthers, Apothecary; Daniel J. Ivers, Assistant Apothecary; Daniel Mahoney, Second Assistant Apothecary.

SAMUEL A. GREEN, M.D., *Superintendent.*

VITAL STATISTICS OF BOSTON.

FOR THE WEEK ENDING SATURDAY, OCTOBER 13th, 1866.

DEATHS.

	Males.	*Females.*	*Total.*
Deaths during the week	55	42	97
Ave. mortality of corresponding weeks for ten years, 1855—1865	44.5	39.9	844
Average corrected to increased population	00	00	92.71
Death of persons above 90	0	1	1

MARRIED,—In this city, 10th inst., Dr. James W. McLane, of New York city, to Miss Adelaide L. Richards, of this city.—On Tuesday, Sept. 18th, at the Legation of the United States, Berne, Switzerland, Lewis T. Warner, M.D., to Miss Sarah L. McKaye, both of New York.

DIED,—In this city, Oct. 11th, Dewey K. Warren, M.D., aged 45.—In Chicago, of cholera, Dr. Daniel Brainard.

DEATHS IN BOSTON for the week ending Saturday noon, Oct. 13th, 97. Males, 55—Females, 42. Abscess, 1—accident, 3—inflammation of the bowels, 1—congestion of the brain, 1—disease of the brain, 2—inflammation of the brain, 4—bronchitis, 1—cholera infantum, 6—cholera morbus, 2—consumption, 16—croup, 1—cystitis, 2—debility, 1—diarrhœa, 2—dropsy, 2—dropsy of the brain, 3—drowned, 2—dysentery, 4—scarlet fever, 1—typhoid fever, 3—gastritis, 2—homicide, 1—infantile disease, 5—disease of the liver, 2—inflammation of the lungs, 4—marasmus, 2—old age, 4—peritonitis, 2—pleurisy, 1—puerperal disease, 1—pyæmia, 1—scalded, 1—smallpox, 2—suicide, 1—unknown, 10.

Under 5 years of age, 33—between 5 and 20 years, 12—between 20 and 40 years, 28—between 40 and 60 years, 11—above 60 years, 13. Born in the United States, 62—Ireland, 26—other places, 9.